

**REMARKS**

**I. Status of the Claims**

Claims 1-11 are currently pending in the present application. Support for the amendment to claim 1 can be found in canceled claim 12, which also has support at page 12, lines 6 and 16 of the original specification. Thus, there is no issue of new matter.

Reconsideration of this application, as amended, is respectfully requested.

**II. Claim Rejections – 35 USC §103 (a)**

The following rejections are pending:

(A) Claims 1-9 are rejected under 35 USC 103(a) as being unpatentable over Oka (JP-07-090179) in view of Nalwa (Journal of Materials Science, 26 (1991) p. 1683-1690); and

(B) Claims 10-11 are rejected under 35 USC 103(a) as being unpatentable over Oka (JP-07-090179) in view of Nalwa (Journal of Materials Science, 26 (1991) p. 1683-1690) and Kin (JP-11-185962).

These rejections are respectfully traversed. Reconsideration and withdrawal thereof are requested.

In order to more clearly distinguish the present invention from the teachings of the cited references, Applicants have amended claim 1 by reducing the upper limit of the number average molecular weight range of the charge transporting oligoaniline from “5000” to “800.” Currently, the number average molecular weight range of the charge transporting oligoaniline is 250-800. Applicants respectfully submit that the cited references fail to teach or fairly suggest that the number average molecular weight range of the charge transporting oligoaniline is 250-800, as presently claimed.

The Examiner asserts:

Oka discloses that the molecular weight kept in a range to have suitable solubility in a solvent (paragraphs 6 and 7). The average molecular weight is ultimately controlled by the propagation level. (See 5<sup>th</sup> paragraph of page 5 of the outstanding Office Action.)

However, Oka “teaches away” from using polyaniline in a number average molecular weight of lower than 2000, in view of the fact that lowering the molecular weight of polyaniline has a negative impact on the flexibility thereof.

In this regard, Oka clearly states that the lower limit of the molecular weight must be 2,000 or more, preferably be 5,000 or more in the following passage:

In this invention, this meltable type poly aniline needs the number average molecular weights 2000-500000... preferably at 5000-250000... If a number average molecular weight of poly aniline becomes lower than 2000, the flexibility of a poly aniline polyamide acid complex salt type precursor and a poly aniline polyimide complex obtained eventually will be spoiled, and it will become difficult to obtain a self-standing film, a fiber, and other molded products. (Cf. [0007], the machine translation by the JPO).

Therefore, a person skilled in the art would be prevented from adjusting the molecular weight of polyaniline of Oka to below 2,000.

Applicants believe that the case of *Ex parte Whalen II*, Appeal 2007-4423 (BOPAI 2008) is relevant to the facts of the present case, and if followed, the Examiner would have taken the opposite position (i.e., the rejections would not have been made). In *Whalen*, the claim was to a composition comprising a biocompatible polymer having a “molecular weight sufficient to impart to the composition a viscosity of at least about 150 cSt at 40°C.” The Examiner asserted that a person of ordinary skill in the art would have been motivated to optimize the viscosity of the final formulations because he would have had a reasonable expectation of success in achieving the safest clinical outcome and avoiding transvenous passage of the embolizing composition. The Board disagreed.

The Board stated:

While “the discovery of an optimum value of a variable in a known process is normally obvious,” *In re Antonie*, 559 F.2d 618, 620 (CCPA 1977), this is not always the case. One exception to the rule is where the parameter optimized was

not recognized in the prior art as one that would affect the results. *Id.*

The Board found that the references all suggest that low viscosity was a desired property in embolic compositions. None of the cited references would have led a person of ordinary skill in the art to modify the known embolic compositions by increasing their viscosity to at least 150cSt at 40°C as claimed. In conclusion, the Board stated that the Examiner has not adequately explained why such a modification would have been obvious.

Here we have similar facts, in that Oka “teaches away” from using polyaniline in a number average molecular weight of lower than 2000, in view of the fact that lowering the molecular weight of polyaniline has a negative impact on the **flexibility** thereof.

As such, significant patentable distinctions exist between the present invention and the teachings of Oka.

The Examiner, aware that significant patentable distinctions exist between the present invention and the teachings of Oka, cites the teachings of Nalwa and Kin in order to cure these deficiencies. Applicants respectfully submit that Nalwa and Kin fail to cure the deficiencies of Oka.

Nalwa has been cited by the Examiner to teach that the oligoanilines can be end-capped with phenyl groups. The Nalwa reference teaches as follows:

The electrophysical properties of the tetramer deviate from the phenyl-end-capped aniline tetramer, due to structural difference. The present studies demonstrate that magnitude of transport properties is sensitive to the chemical structures. (Cf. p.1689).

It is Applicant’s position that this teaching does not and cannot motivate a person skilled in the art to cap the end of polyaniline of Oka with phenyl groups or to reduce the number average molecular weight of the polyaniline of Oka to be 250-800, as presently claimed.

Kin has been cited for teaching the charge transporting thin film of claim 10 and the OED of claim 11.

Accordingly, those skilled in the art would not find obvious the inventive varnish or the advantageous effects thereof from the combination of Oka, Nalwa and Kin.

Reconsideration and withdrawal of the rejection are respectfully requested.

**III. Conclusion**

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

In view of the above amendment, Applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Garth M. Dahlen, PhD, Registration No. 43575 at the telephone number of the undersigned below to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Director is hereby authorized in this, concurrent, and future replies to charge any fees required during the pendency of the above-identified application or credit any overpayment to Deposit Account No. 02-2448.

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Respectfully submitted,

By   
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